

REMARKS

Claims 1 - 15, 17, 19 and 20 are active in the case. Claims 5 - 19 stand withdrawn from consideration. Reconsideration is respectfully requested.

The present invention relates to a precipitated silica.

Claim

The Examiner is requested to advise applicants as to the status of Claim 20 which was newly presented in the response that was filed to the previous Office Action.

Claim Rejection, 35 USC 102

Claims 1-4 stand rejected based on 35 USC 103(a) as obvious over Uhrlandt et al, U.S. Patent 6,180,076. This ground of rejection is respectfully traversed.

The Examiner at the bottom of page 3 of the Office Action states that the cited Uhrlandt et al patent teaches the claimed BET, CTAB and DBP ranges of the claimed precipitated silica of the present invention, and further states with respect to the Sears No. that the patent fails to teach the (presently) claimed Sears No. range, but (at the top of page 4 of the of the Action) states that, nevertheless, the reference discloses a Sears No range of 6-25 ml in comparison to the present Sears No range of 23-35 ml, with a statement that somehow the determination of Sears No value in the patent must be equated with the Sears No values of the present claims. Where is there a requirement or necessity of such an "equating" when the very mention of the term "Sears No" means that by following the steps of the standardized procedure, one can determine the number of silanol groups on the surface of a silica and that the number obtained can be directly compared to other silicas for which Sears No values have been obtained. Such a comparison can be made in the present case where the Sears No values of 6-25 ml for the silica of the patent does not compare favorably with the

Sears No. range of 23-35 ml range of the present claims. Yes, a small partial overlap of ranges does exist, but as an entity the range of 6-25 ml of the patent does not reasonably lead the skilled artisan to the higher spread of Sears No values of 23-35 ml of the present claims, especially since the most that can be said of the BET, CTAB and DBP ranges of the patent is that there is only partial overlap of values with the respective ranges of the present claims.

Even if a precipitated silica is prepared that has specific BET and CTAB surface area values, a DBP number and a Sears number that is within the ranges of BET and CTAB surface areas, of DBP and of Sears number taught by the patent, does that mean that automatically one has arrived at the present silica which enables the preparation of the improved tire structure achieved in the present invention. (See data in the specification and earlier presented in the Declaration (37 CFR 1.132)? In reply applicants note the following comments made by investigators Fultz et al, U. S. Patent 5,929,156 as follows:

It is well known that a single physical characteristic, such as surface area or particle size, does little to describe a silica product or to predict its behavior in a specific application. The mechanisms which govern how a particular silica product performs in a given end-use can be extraordinarily complex and are often not well understood; thus, linking one or even a few conventionally -measured silica product physical properties to particular end-use performance characteristics is extremely difficult and potentially misleading.

Accordingly, in the present case applicants have found that a particular precipitated silica having the particular surface area and other surface characteristics as described is uniquely exceptional in its ability to function as a reinforcing filler in tire tread formulations. Thus, the different value ranges of BET, CTAB, DBP value and Sears value are distinctive in describing a successful precipitated filler for tire tread formulations.

Applicants note the Examiner's allegation that they have said that the disclosure of Uhrlandt et al represents non-analogous prior art. Applicants can not find in their previous comments where such a statement has been made. In any event, such a statement is incorrect in view of the fact that both the present invention and Uhrlandt et al disclose precipitated silicas that are useful in the preparation of rubber materials from which tires can be prepared. The present precipitated silica is especially useful for incorporation into the rubbers that are used for truck tire construction and for tires that are subjected to high speeds.

As far as the Examiner's comments in the first paragraph of page 6 are concerned that *in the case where the claimed ranges overlap or lie inside ranges disclosed by the prior art, a prima facie case of obviousness exists*, where is the suggestion in the art for preparing a precipitated silica that, for example, has a BET surface area of $220 \text{ m}^2/\text{g}$, that simultaneously must have a CTAB value of at least $170 \text{ m}^2/\text{g}$, a DBP index of at least $200 \text{ g}/(100 \text{ g})$ and a Sears number of above 25 to 35 ml/ (5 g)? The simple answer to this is that no such teaching or suggestion exists. How then can the present precipitated silica be considered to be obvious over the teachings of the patent?

As to the matter of the Examiner's dismissal of the comparative evidence (second paragraph of page 6 of the Action) that is presented in the previously filed declaration, it is noted that the properties of dynamic modulus and rigidity of tires prepared from the present precipitated silica are disclosed properties (see page 32, lines 8-11 of the specification) which can be relied upon in evaluating the difference between the precipitated silica as claimed and that of Uhrlandt et al, because they are disclosed. This fact alone permits or legitimizes the comparative showing that has been presented in the declaration. It is not essential nor is it a requirement that the properties themselves have to be recited in the claims in order to be considered in the evaluation of the patentability of the present invention. Thus, the distinctiveness of the present claimed invention based on the four properties recited in the

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present claims is supported by the evidence presented in the declaration. Withdrawal of the outstanding ground of rejection is respectfully requested.

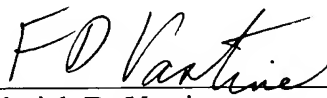
It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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